



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,470	09/28/2004	Francisco Speich	P/4302-12 (PCT)	7352

7590 08/28/2008
Klaus P. Stoffel, Esq.
Wolff & Samson PC
One Boland Drive
West Orange, NJ 07052

EXAMINER

MUROMOTO JR, ROBERT H

ART UNIT	PAPER NUMBER
----------	--------------

3765

MAIL DATE	DELIVERY MODE
-----------	---------------

08/28/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/509,470	Applicant(s) SPEICH ET AL.	
	Examiner BOBBY H. MUROMOTO JR	Art Unit 3765	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/28/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 14-17, 19-21, and 23-29 to the extent they are understood by the Examiner are rejected under 35 U.S.C. 103(a) as being unpatentable over Speich et al., US patent 6,079,455 in view of U.S. Patent No. 3,835,894 or U.S. Patent No. 5,513,676.

'455 discloses, "FIG. 1 and FIG. 2 as well as diagrams 3 and 4 illustrate the principle underlying the invention disclosed hereunder, i.e. an oscillating system consisting of a dragging element 2 for the transverse movement of a thread 4, the dragging element 2 being attached to a machine frame 10 by means of an upper spring 6 and a lower spring 8.

FIG. 5 and diagram 6 show the oscillating system of FIG. 1 and FIG. 2, the device, however, being supplemented by an upper arresting device 12 and a lower arresting device 14, which are designed as electromagnetic units and can be controlled by a control unit 16. The arresting devices 12 and 14 deflect

the oscillating dragging element 2 during each oscillation into the extreme position determined by the amplitude A. Thereby, the arresting devices 12 and 14 serve both to supply energy, as they make up for the reduction of the oscillation by ΔA , and to control the oscillating system. Thus the dragging element can for an adjustable period t_s , for example for a full oscillation, be kept in the upper or lower position as this is illustrated by curve sections 13b and 13c of curve 13 in FIG. 6. Thus, the transverse movement of the thread 4 can be individually controlled in the way required, for example, for the production of patterned fabrics on a weaving loom.”

The ‘oscillating system’ equates to the “at least one lifting device driven in oscillation”; the dragging element 2 equates to the “at least one driver element”; the arresting devices 12, 14 equate to ‘detaining devices’.

Arresting devices 12, 14 act as damping devices and include control means as claimed.

The dragging elements inherently have some ‘bend resistance’ or else they would not be strong enough to operate during a normal weaving process.

The dragging elements are connected to springs 6 and 8, that are ‘elastic damping’ members.

Arresting devices 12, 14 act as stops as claimed.

An embodiment in figure 8, clearly shows an actuator with permanent, oblique magnet means with poles in line with the direction of movement, as claimed.

Claims 20, 21, 23 are clearly disclosed in citation above.

Springs are clearly disclosed.

Figure 5 shows a 'locking recess' at the upper position. The locking is performed by the magnetic field.

Figure 22 clearly shows a 'return spring' as claimed.

Although Speich teaches essentially all of the claimed limitations, Speich does not teach "lifting knives". However, as stated in applicant's most recent remarks, such devices are well known in the art as in U.S. Patent No. 3,835,894 or U.S. Patent No. 5,513,676.

Therefore it would have been obvious to one of ordinary skill in the art to modify the well known knife lifting system to include the electromagnetic system of Speich as the lifting knife construction is a well-known device in the art of weaving.

Claims 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Speich et al., US patent 6,079,455 in view of U.S. Patent No. 3,835,894 or U.S. Patent No. 5,513,676 and further in view of Duhamel US patent 6,105,628.

Although the combined teachings teach essentially all of the limitations of the claims above, '455 does not teach the poles of the magnet arranged transverse to the direction of the driver (horizontal). However, this arrangement is considered by the examiner to be an engineering design choice that a skilled artisan would have been able to determine through routine variation and experimentation.

As evidence, the examiner cites Duhamel that teaches an electromagnetic actuator for shedding in looms that can be pushed by 'transverse' or in-line magnetic

fields by arranging the magnets to have poles 'transverse' or in-line with the actuator movement.

Therefore it would have been an obvious variant to arrange the magnetic poles of the magnets transversely to the direction of movement.

Examiner Comment

With respect to the 'contactless coupling' in claim 14, the examiner has cited US patent 3573517 that gives a clear teaching of magnetically driven actuators that use so-called "contactless" couplings to provide damping properties to oscillation systems that are operated at very high oscillation rates (i.e. weaving).

Response to Arguments

Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

Also applicant's submitted remarks are incomplete as they end prematurely at page 12, it appears the final pages were erroneously omitted.

The rejection remains and is considered to be proper.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BOBBY H. MUROMOTO JR whose telephone number is (571)272-4991. The examiner can normally be reached on 8-530, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Welch can be reached on 571-272-4996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:
10/509,470
Art Unit: 3765

Page 7

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Bobby Muromoto
/Bobby Muromoto/
Patent examiner
Art unit 3765
August 15, 2008